

PATENT COOPERATION TREATY
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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference RO5054 PCT	FOR FURTHER ACTION		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/JP2005/011487	International filing date (day/month/year) 16/06/2005	(Earliest) Priority Date (day/month/year) 17/06/2004	
Applicant RICOH COMPANY, LTD.			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**
 - a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
 - b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.
 2. **Certain claims were found unsearchable** (See Box II).
 3. **Unity of invention is lacking** (see Box III).
 4. With regard to the title,
 - the text is approved as submitted by the applicant.
 - the text has been established by this Authority to read as follows:
5. With regard to the abstract,
 - the text is approved as submitted by the applicant.
 - the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. With regard to the drawings,
 - a. the figure of the drawings to be published with the abstract is Figure No. 20b
 - as suggested by the applicant.
 - as selected by this Authority, because the applicant failed to suggest a figure.
 - as selected by this Authority, because this figure better characterizes the invention.
 - b. none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2005/011487

A. CLASSIFICATION OF SUBJECT MATTER

G11B20/12

G11B27/32

G11B7/007

G11B19/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	EP 1 492 117 A (SONY CORPORATION) 29 December 2004 (2004-12-29) abstract paragraphs '0001! - '0017! paragraphs '0030! - '0113! figures 3-9 ----- WO 03/105141 A (LG ELECTRONICS INC; SUH, SANG WOON) 18 December 2003 (2003-12-18) the whole document -----	1, 4, 12, 17, 37, 38
X	EP 0 715 301 A (SONY CORPORATION) 5 June 1996 (1996-06-05) abstract column 8, line 50 - column 9, line 1 figure 13 -----	1, 4, 12, 17, 37, 38
A		1, 4, 12, 17, 37, 38

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

10 August 2005

16/12/2005

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INTERNATIONAL SEARCH REPORT

International Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 966 721 A (HIRAYAMA ET AL) 12 October 1999 (1999-10-12) abstract column 1, lines 5-48 column 3, line 29 - column 4, line 3 figures 2-4 -----	1, 4, 12, 17, 37, 38

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2005/011487

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
EP 1492117	A 29-12-2004	JP 2005018919 A CN 1577579 A EP 1492117 A2 US 2005025015 A1		20-01-2005 09-02-2005 29-12-2004 03-02-2005
WO 03105141	A 18-12-2003	KR 2003094855 A AU 2003241201 A1 CN 1552064 A EP 1512144 A1 WO 03105141 A1 US 2005036427 A1		18-12-2003 22-12-2003 01-12-2004 09-03-2005 18-12-2003 17-02-2005
EP 0715301	A 05-06-1996	AT 189076 T AU 3914895 A BR 9505603 A CA 2164081 A1 CN 1135632 A DE 69514630 D1 DE 69514630 T2 EP 0715301 A2 ES 2140628 T3 JP 8212561 A US 6424614 B1		15-02-2000 06-06-1996 04-11-1997 31-05-1996 13-11-1996 24-02-2000 31-05-2000 05-06-1996 01-03-2000 20-08-1996 23-07-2002
US 5966721	A 12-10-1999	JP 2871534 B2 JP 9007308 A CN 1280367 A , C CN 1334561 A CN 1146586 A , C CN 1229233 A DE 19625396 A1 KR 233201 B1 US 6076135 A US 6154806 A US 6233649 B1 US 6332174 B1 US 6347353 B1 US 6324618 B1		17-03-1999 10-01-1997 17-01-2001 06-02-2002 02-04-1997 22-09-1999 09-01-1997 01-12-1999 13-06-2000 28-11-2000 15-05-2001 18-12-2001 12-02-2002 27-11-2001